

CLAIM AMENDMENTS

1 - 12. (canceled)

1 13. (currently amended) A reactor for gasifying granular
2 fuels, the reactor comprising:

3 a casing provided in an upper portion with

4 a vertical annular wall and

5 a partition defining with the wall a generally

6 closed annular chamber;

7 means including a reservoir holding the granular fuel and
8 opening into the casing within the annular wall for forming in the
9 casing below the partition a fixed bed of the granular fuel having
10 an upper surface spaced below the partition;

11 means for introducing an oxygen-containing gasification
12 medium into the bed below the surface thereof such that the
13 gasification medium moves up through the fixed bed of granular fuel
14 and creates an endothermic reaction in the fixed bed with partial
15 oxidation of the bed and the creation of a product gas containing
16 hydrogen and carbon oxides rising from the surface of bed, whereby
17 the product gas entrains particles upward from the surface out of
18 the fixed bed into a generally empty region below the partition,
19 above the upper surface, and outside the annular wall;

20 at least one centrifugal separator in the casing and at
21 least partially imbedded in the bed for separating particles from
22 the product gas, the separator having an upper inlet opening in the

23 empty region above the fixed bed of granular fuel for taking in the
24 particle-laden product gas coming from the fixed bed of granular
25 fuel, an outlet for product gas projecting through the partition
26 and opening into the annular chamber, and a lower solid discharge
27 opening directly into the fixed bed below the surface thereof; and
28 means including a discharge duct connected to the annular
29 chamber above the surface and via the chamber to the outlet of the
30 separator for withdrawing the product gas from the casing.

1 14. (currently amended) The reactor for gasifying
2 granular fuels defined in claim 13 wherein there are a plurality of
3 the centrifugal separators in the casing and the discharge duct is
4 ~~formed as an~~ extends horizontally from the annular chamber disposed
5 ~~in an upper portion of the reactor above the bed surface.~~

15. (canceled)

1 16. (currently amended) The reactor for gasifying
2 granular fuels defined in claim ~~[[15]]~~ 13 wherein the centrifugal
3 separator is disposed outside the portion enclosed by the annular
4 wall.

1 17. (previously presented) The reactor for gasifying
2 granular fuels defined in claim 13 wherein the centrifugal
3 separator is a cyclone.

Atty's 21551

Pat. App. 09/601,377

18 - 19. (withdrawn)